MATERIAL SAFETY DATA SHEET

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SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

ADDRESS 2105 Channel Ave. MANUFACTURERS NAME W.M. BARR & COMPANY, INC.

Memphis, TN 38113

EMERGENCY CONTACT W.M. Barr Technical Services EMERGENCY TELEPHONE #1 901-775-0100

EMERGENCY INFORMATION
"3E" 24 HOUR MEDICAL EMERGENCY #, 800 451-8346. SEE SECTION 5 FOR ADDITIONAL EMERGENCY INFORMATION

GBC12

PRODUCT NAME KS BRUSH CLEANER 1 GL

REVISED BY REVISION DATE W.M. Barr Technical Services

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

			CZ	ARCINO	∌ENIC:	ΙΤΥ
SUBSTANCE DESCRIPTION	PERCENT	CA6#	NTP	ACGIH	OSHA	IARC
ALCOHOLS ESTERS GLYCOL ETHER KETONES PETROLEUM DISTILLATE 1-METHYL-2-PYRROLIDONE METHYLENE CHLORIDE METHANOL TOLUENE	5= 35 10- 50 10- 50 20- 80 1= 10 1- 5 1- 5	N/A N/A N/A N/A N/A=50-4 75-09-2 67-56-1 108-88-3	N N N N Y N	N N N N Y N	N N N N N N N	N N N N N Y N

SECTION 3. REGULATORY INFORMATION

EXPOSU	RE LIMITS/	REGUL	ATORY INFORM	ATION			
SUBSTANCE DESCRIPTION	REG . AGCY	U/M	TWA	STEL	CEIL	SKIN	PEL
ALCOHOLS	acgih	PPM	200.00	250.00	N/E	Y	N/E
	Osha	PPM	200.00	250.00	N/E	Y	200.00
ESTERS	acgih	PPM	150.00	N/E	n/e	N	n/e
	Obha	PPM	150.00	N/E	n/e	N	n/e
GLYCOL ETHER	acgih	PPM	20.00	N/E	N/E	Y	N/E
	Osha	PPM	N/E	N/E	N/E	Y	N/E
KETONES	acgih	PPM	200.00	300.00	N/E	N	N/E
	Osha	PPM	200.00	300.00	N/E	N	200.00
PETROLEUM DISTILLATE	acgih	PPM	50.00	N/E	N/E	¥	N/E
	Obha	PPM	200.00	N/E	300.00	N	N/E
1-METHYL-2-PYRROLIDONE	acgih	PPM	N/E	N/E	N/E	N	N/E
	Osha	PPM	N/E	N/E	N/E	N	N/E
RECOMMENDED EXPOSURE LIMIT:	100 PPM TW	A, Aê	PROVIDED BY	âUPPLIER.			
METHYLENE CHLORIDE	ACGIH	PPM	50.00	N/E	N/E	N	N/E
	OSHA	PPM	2 5.00	1 2 5.00	1000.00	N	N/E

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SECTION 3. REGULATORY INFORMATION (CONTINUED)

OSHA PEAK CONCENTRATION FOR 8HR 8HIFT: 2000 PPM FOR 5 MIN. IN ANY 2 HR8. EMPLOYERS ARE REQUIRED TO CONDUCT INITIAL MONITORING OF AIRBORNE METHYLENE CHLORIDE, (MC), CONCENTRATIONS AND TO CONDUCT PERIODIC (MC) EXPOSURE MONITORING FOR ALL TASKS WHERE EMPLOYEE EXPOSURES ARE ABOVE ACTION LEVEL (12.5 PPM, 8-HR TWA) OR STEL. NTP-ANTICIPATED CARCINOGEN, IA POSSIBLE CARCINOGEN (2B); ACGIH-SUSPECTED CARCINOGEN (A2); NIOSH-DEFINED CARCINOGEN. (MC) HAS CAUSED CANCER IN CERTAIN LABORATORY ANIMAL TESTS. RISK TO YOUR HEALTH DEPENDS ON LEVEL AND DURATION OF EXPOSURE.

acgih Osha N/E 200.00 TOLUENE ACCIH OSHA 50.00 N/E N/E 200.00

OSHA PEAK CONCENTRATION FOR 8 HR. SHIFT: 500 PPM FOR 10 MINUTES.

ADDITIONAL REGULATORY INFO

METHANOL

The time weighted average (TWA) value described herein is a threshold limit value (TLV) as established by ACGIH. The permissible exposure limit (PEL) is a value established by OSHA.

 ${\tt SEC.~313~SUPPLIER~NOTIFICATION}$ The following information must be included in all MSDS that are copied and distributed for this material.

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40CFR 372):

SUBSTANCE DESCRIPTION	PERCENT BY WEIGHT	CAS#
	(UPPER LIMIT)	
ALCOHOLS	35	N/A
PETROLEUM DISTILLATE	âû	N/A
1-METHYL-2-PYRROLIDONE	10	872-50-4
METHYLENE CHLORIDE	3	75-09-2
METHANOL	5	67-56-1
TOLUENE	18	108-88-3

CLEAN AIR ACT

This formula contains no known ozone depleting chemicals.

HAZARD COMMUNICATION STANDARD

This document is prepared in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200). This MSDS contains thirteen (13) sections.

The following effects and/or symptoms are not expected to be experienced by persons who use this product properly and according to ALL instructions, precautions, and warnings; however, should the product user experience ANY questionable effects or symptoms, the product user should immediately seek medical attention.

SECTION 4. HAZARDS IDENTIFICATION

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SECTION 4. HAZARDS IDENTIFICATION (CONTINUED)

INHALATION ACUTE EXPOSURE EFFECTS

Vapor harmful.

May cause dizziness; headache; irritation of the respiratory tract; injuries to mucous membranes; watering of eyes; weakness; drowsiness; nausea; loss of coordination; numbness in fingers, arms, and legs; depression of the central nervous system; loss of and legs; depression of the central nervous system; loss of appetite; blurred vision; fatique; stupor; vomiting; stomach and intestinal pain; heartburn; confusion; brain damage; lower blood pressure; liver and kidney injury; hallucinations; irregular heartbeat; cold, clammy extremities; diarrhea; blood disorders; spotted vision; dilation of pupils; visual disturbances; giddiness and intoxication; sleepiness; cough and dypsnea; nose tumors; hot flashes; arm, leg and chest pain; rapid heartbeat; increase in carboxyhemoglobin levels, which can cause stress to the cardiovascular system; convulsions; unconsciousness; coma; and cardiovascular system; convulsions; unconsciousness; coma; and

Elevated carboxyhemoglobin levels can be additive to the increase caused by smoking and other carbon monoxide sources. Intentional misuse of this product by deliberately concentrating and inhaling can be harmful or fatal. May produce symptoms similar to those listed under ingestion.

SKIN CONTACT ACUTE EXPOSURE EFFECTS

AKIN CONTACT ACUTE EXPOSURE EFFECTS

Product may be absorbed through skin. Harmful if absorbed through skin. May cause irritation; drying and cracking of skin; defatting of skin; dermatitis; itching; burning; redness; inflammation; swelling; tissue damage; keratitis; discomfort or pain; erythema; numbness in fingers and arms. May be absorbed readily to produce symptoms similar to those listed for ingestion. Prolonged or widespread contact may result in absorption of potentially harmful amounts of this material. May cause additional symptoms listed under inhalation.

EYE CONTACT ACUTE EXPOSURE EFFECTS
This material is an eye irritant. May cause irritation and injury; redness; tearing; blurred vision; burns; conjunctivitis of eyes; corneal ulcerations of the eye. If not promptly removed, will injure eye tissue, which may result in permanent damage.

INGESTION ACUTE EXPOSURE EFFECTS
May be fatal or cause blindness if swallowed. May cause dizziness; headache; drowsiness; nausea; weakness; stupor; irritation to mouth, throat and stomach; depression of the central nervous system; mouth, throat and stomach; depression of the central nervous syste vomiting; muscle twitches; gastrointestinal irritation; diarrhea; loss of appetite; narcosis; red blood cell hemolysis; mental confusion; slurred speech; changes in white blood cells; fatigue; blindness; narcosis; liver damage; kidney damage; heart damage; unconsciousness; convulsions; coma; and death.

May produce additional symptoms listed under inhalation.

Liquid aspirated into lungs can cause chemical pneumonitis or pulmonary adms which can be fatal pulmonary edema, which can be fatal.

CHRONIC EXPOSURE EFFECTS

CHRONIC EXPOSURE EFFECTS
Reports have associated repeated and prolonged overexposure to solvents with neurological and other physiological damage.
Prolonged skin contact may result in absorption of a harmful amount of this material. Prolonged or repeated contact may cause dermatitis. May cause weakness; skin irritation; nausea; numbness in hands and feet; permanent central nervous system changes; some loss of memory; gastric disturbances; giddiness; insomnia; brain damage; bone marrow damage; liver damage; kidney damage; hallucinations; blood disorders; irregular heartbeat; jaundice; anemia; inflammation; redness; eye irritation; pancreatic damage; visual impairment or blindness. Prolonged or repeated contact may cause drying and cracking of skin. Repeated overexposure may cause red blood cell hemolysis.

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SECTION 4. HAZARDS IDENTIFICATION (CONTINUED)

MEDICAL CONDITIONS AGGRAVATED

Diseases of the skin; eyes; liver; kidneys; lungs; cardiovascular system; respiratory system; asthma; blood; inflammatory or fibrotic pulmonary disease; in addition to alcoholism; rhythm disorders of the heart.

PRIMARY ROUTE OF EXPOSURE
Inhalation, ingestion, and dermal.

SECTION 5. FIRST AID MEASURES

INHALATION

If user experiences breathing difficulty, move to air free of vapors. Administer oxygen or artificial respiration until medical assistance can be rendered.

 $\ensuremath{\mathtt{SKIN}}$ CONTACT Wash with soap and large quantities of water and seek medical attention if irritation from contact persists.

EYE CONTACT

Flush with large quantities of water for at least 15 minutes and seek immediate medical attention.

Call your poison control center, hospital emergency room or physician immediately for instructions to induce vomiting.

NOTE TO PHYSICIAN

POISON. THIS PRODUCT CONTAINS METHANOL.
Methanol is metabolized to formaldehyde and formic acid. These metabolites may cause metabolic acidosis, visual disturbances and blindness. Since metabolism is required for these toxic symptoms, their onset may be delayed from 6 to 30 hours following ingestion. Ethanol competes for the same metabolic pathway and has been used as an antidote. Methanol is effectively removed by hemodialysis. This formula is registered with POISINDEX.

Call your local poison control center for further information.

SECTION 6. FIRE FIGHTING MEASURES

HAZARD RATING SOU	RCE HMIS	NFPA
HEALTH	3	2
FLAMMABILITY	3	3
REACTIVITY	0	0
OTHER	G	NA

FLASH METHOD

FLASH POINT 4.00 F

-15.55 C

LOWER EXPLOSION LIMIT

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GENERAL COMMENTS

OSHA FLAMMABILITY: Class IB

EXTINGUISHING METHOD

Use carbon dioxide, dry powder, or foam.

FIRE FIGHTING PROCEDURES

Self-contained respiratory protection should be provided for fire fighters fighting fires in buildings or confined areas. Storage containers exposed to fire should be kept cool with water spray to prevent pressure build-up. Stay away from heads of containers that have been exposed to intense heat or flame.

FIRE AND EXPLOSION HAZARDS

DANGER! EXTREMELY FLAMMABLE. KEEP AWAY FROM HEAT, SPARKS, FLAME,
AND ALL OTHER SOURCES OF IGNITION. VAPORS MAY CAUSE FLASH FIRE OR
IGNITE EXPLOSIVELY. VAPORS MAY TRAVEL LONG DISTANCES TO OTHER AREAS
AND ROOMS AWAY FROM WORK SITE. Do not smoke. Extinguish all flames
and pilot lights, and turn off stoves, heaters, electric motors and
all other sources of ignition anywhere in the structure, dwelling or building during use and until all vapors are gone from the work site. Keep away from electrical outlets and switches. Beware of static electricity that may be generated by synthetic clothing and other sources.

âection 7. accidental release measures

CLEAN-UP

Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind, out of low areas, and ventilate closed spaces before entering. Shut off ignition sources; keep flares, smoking or flames out of hazard area. SMALL SPILLS: take up liquid with sand, earth or other noncombustible absorbent material and place in a plastic container where applicable. LARGE SPILLS: dike far ahead of spill for later disposal.

For transportation related spills contact Chemtrec at 1-800-424-9300 for emergency assistance.

WASTE DISPOSAL

Dispose in accordance with applicable local, state and federal regulations.

SECTION 8. HANDLING AND STORAGE

Keep container tightly closed when not in use. Store in a cool, dry place. Do not store near flames or at elevated temperatures.

HANDLING

HANDLING
Read carefully all cautions and directions on product label before
use. Since empty container retains residue, follow all label
warnings even after container is empty. Dispose of empty container
according to all regulations. Do not reuse this container.

BECTION 9. TRANSFORT INFORMATION

TRANSPORTATION

For D.O.T. information, contact W.M. Barr Technical Services Department.

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SECTION 10. EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION PROTECTION

VENTILATION PROTECTION

Do not use in areas where vapors can accumulate and concentrate such as basements, bathrooms or small enclosed areas. USE ONLY WITH ADEQUATE VENTILATION TO PREVENT BUILDUP OF VAPORS. Whenever possible use outdoors in an open air area. If using indoors open all windows and doors and maintain a cross ventilation of moving fresh air across the work area. If strong odor is noticed or you experience slight dizziness, headache, nausea or eye-watering - STOP - ventilation is inadequate. Leave area immediately ventilation is inadequate. Leave area immediately.

RESPIRATORY PROTECTION

If the work area is not well ventilated you MUST use a properly fitted and maintained NIOSH approved self-contained breathing apparatus. A dust mask does not provide protection against vapors.

SKIN PROTECTION

wear impermeable gloves. Gloves contaminated with product should be discarded. Promptly remove clothing that becomes soiled with product.

Safety glasses, chemical goggles or face shields are recommended to safeguard against potential eye contact, irritation, or injury. Contact lenses should not be worn while working with chemicals.

OTHER PROTECTION
Various application methods can dictate use of additional protective safety equipment, such as impermeable aprons, etc., to minimize exposure. A source of clean water should be available in the work area for flushing eyes and skin. Do not eat, drink, or smoke in the work area. Wash hands thoroughly after use. Before reuse, thoroughly clean any clothing or protective equipment that has been contaminated by prior use. Discard any clothing or other protective equipment that cannot be decontaminated, such as gloves or shoes.

SECTION 11. PHYSICAL AND CHEMICAL PROPERTIES

VOLATILE %

100.000

by weight

BOILING POINT GT 133.00 F 56.11 C BOILING RANGE: 133 F - 292 F

VAPOR DENSITY (Air = 1.0)

Heavier than air

EVAPORATION RATE Slower than ether

BULK DENSITY

lbs/gal at 75 F

ph FACTOR

N/E

PHOTOCHEMICALLY REACTIVE

MAX V.O.C.

780 grams per liter (excluding exempt solvents and water)

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SECTION 11. PHYSICAL AND CHEMICAL PROPERTIES
(CONTINUED)

MAX VAPOR PRESSURE

60mm Hg@ 20 degree C SECTION 12. STABILITY AND REACTIVITY

INCOMPATIBILITIES

Incompatible with strong oxidizing agents; strong caustics; acids; alkali; amines; reducing agents; aldehydes; ammonia; nitrogen peroxides; reactive metals.

DECOMPOSITION

Thermal decomposition may produce carbon monoxide; carbon dioxide; acrid smoke; formaldehyde; oxides of nitrogen and irritating fumes; chlorine gas; small quantities of phosgene; hydrogen chloride.

POLYMERIZATION

Will not occur.

Stable.

SECTION 13. ADDITIONAL INFORMATION

IMPORTANT NOTE

IMPORTANT NOTE
The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. Any use of this data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.

LEGEND:

PPM = parts per million
MG/M3 = milligrams per cubic meter
N/E or NE = none established
GT = greater than N/A or NA = not applicable TCC = tag closed cup TOC = tag open cup PMCC = Pensky-Martens closed cup IDLH = Immediately Dangerous to Life and Health

END OF MSDS